

AMENDMENTS TO THE CLAIMS:

The listing of claims shown below will replace all prior versions, and listings, of
claims in the Application:

- Sub C: 7*
- figs. 1, 2*
- BH*
1. (Amended) A ~~MEMS~~Micro-Electro-Mechanical System apparatus, comprising:
a substrate;
a passivation layer on the substrate, the passivation layer having a top surface; and
a microstructure suspended above the substrate, the microstructure having a bottom
surface facing the top surface of the passivation layer;
6 wherein the passivation layer is patterned ^{delete} ~~is patterned~~ to form a plurality of spaced
protuberances so that the top surface of the passivation layer is substantially different from
the bottom surface of the microstructure.
2. (Cancelled)
3. (Amended) The ~~MEMS~~Micro-Electro-Mechanical System apparatus of claim 21,
wherein the bottom surface of the microstructure is substantially flat.
- fig. 3A*
4. (Amended) The ~~MEMS~~Micro-Electro-Mechanical System apparatus of claim 21,
wherein at least one of the protuberances has a square cross section.
- fig. 3B*
5. (Amended) The ~~MEMS~~Micro-Electro-Mechanical System apparatus of claim 21,

Sub C1 7 wherein at least one of the protuberances has a rectangular cross section.

fig. 3C 6. (Amended) The ~~MEMS~~ Micro-Electro-Mechanical System apparatus of claim 21, wherein at least one of the protuberances has a hexagonal cross section.

7. (Amended) The ~~MEMS~~ Micro-Electro-Mechanical System apparatus of claim 1, wherein the passivation layer is patterned to form a mesh.

BN 8. (Amended) The ~~MEMS~~ Micro-Electro-Mechanical System apparatus of claim 7, wherein the bottom surface of the microstructure is substantially flat.

fig. 3E 9. (Amended) The ~~MEMS~~ Micro-Electro-Mechanical System apparatus of claim 7, wherein the mesh is a square mesh.

fig. 3D 10. (Amended) The ~~MEMS~~ Micro-Electro-Mechanical System apparatus of claim 7, wherein the mesh is a hexagonal mesh.

11. (Amended) The ~~MEMS~~ Micro-Electro-Mechanical System apparatus of claim 1, wherein the passivation layer comprises polyimide.

12. (Amended) The ~~MEMS~~ Micro-Electro-Mechanical System apparatus of claim 1, wherein the passivation layer comprises silicon nitride.

SUB C.17
figs. 1, 2
BH

13. (Amended) A MEMS Micro-Electro-Mechanical System apparatus, comprising:
a substrate;
a passivation layer on the substrate, the passivation layer having a top surface;
a support attached to the substrate; and
a beam attached at one end to the support and suspended above the substrate, the
beam having a bottom surface facing the top surface of the passivation layer;
wherein the passivation layer is patterned to form a plurality of spaced
protuberances so that the top surface of the passivation layer is substantially different from
the bottom surface of the beam.

C

14. (Amended) The MEMS Micro-Electro-Mechanical System apparatus of claim 13,
further comprising a second support attached to the substrate and wherein the beam is
attached to the second support at a second end.

fig. 2

15. (Amended) The MEMS Micro-Electro-Mechanical System apparatus of claim 13,
further comprising a bottom electrode on the substrate and underneath the bottom surface
of the beam.

16. (Cancelled)

17. (Amended) The MEMS Micro-Electro-Mechanical System apparatus of claim 13,

SUB C17 wherein the bottom surface of the microstructure beam is substantially flat.

fig. 3A 18. (Amended) The MEMS Micro-Electro-Mechanical System apparatus of claim 4613, wherein at least one of the protuberances has a square cross section.

fig. 3B 19. (Amended) The MEMS Micro-Electro-Mechanical System apparatus of claim 4613, wherein at least one of the protuberances has a rectangular cross section.

fig. 3C 20. (Amended) The MEMS Micro-Electro-Mechanical System apparatus of claim 4613, wherein at least one of the protuberances has a hexagonal cross section.

C 21. (Amended) The MEMS Micro-Electro-Mechanical System apparatus of claim 13, wherein the passivation layer is patterned to form a mesh.

22. (Amended) The MEMS Micro-Electro-Mechanical System apparatus of claim 21, wherein the bottom surface of the microstructure beam is substantially flat.

fig. 3E 23. (Amended) The MEMS Micro-Electro-Mechanical System apparatus of claim 21, wherein the mesh is a square mesh.

fig. 3F 24. (Amended) The MEMS Micro-Electro-Mechanical System apparatus of claim 21, wherein the mesh is a hexagonal mesh.

Sub
a 7

25. (Amended) The MEMS Micro-Electro-Mechanical System apparatus of claim 13, wherein the passivation layer comprises polyimide.

BH
Concl'd

26. (Amended) The MEMS Micro-Electro-Mechanical System apparatus of claim 13, wherein the passivation layer comprises silicon nitride.

C

Claims 27-38 (Previously Cancelled)

39. (New) The Micro-Electro-Mechanical System apparatus of claim 1, wherein the passivation layer is made of a dielectric material selected from the group consisting of silicon oxide, strontium titanate oxide, barium strontium titanate, and benzocyclobutene.

40. (New) The Micro-Electro-Mechanical System apparatus of claim 13, wherein the passivation layer is made of a dielectric material selected from the group consisting of silicon oxide, strontium titanate oxide, barium strontium titanate, and benzocyclobutene.

P, 5
B5

P, 5